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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,204	03/02/2001	John Henry Forster	P277103	6271
909	7590	06/30/2004	EXAMINER	
PILLSBURY WINTHROP, LLP			SAWHNEY, HARGOBIND S	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2875	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/786,204	FORSTER ET AL.	
	Examiner	Art Unit	
	Hargobind S Sawhney	2875	<i>Am</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4/12/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Request for Continuing Examination (RCE) files on April 12, 2004 has been entered, In addition, supplemental amendment and response filed April 12, 2004 have been entered. Accordingly, Claim 9 has been cancelled, and new claims 13-17 have been added.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8,10,11 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klick et al. (European Patent Publication No. 0660293 A3).

The English translation of Klick et al. (European Patent Publication No. 0660293 A3), hereinafter referred as Klick, submitted by the applicant does not have page numbers marked. Therefore, the examiner has assigned page numbers for clear communication. Marked-up copy has been included in the previous office action.

Regarding Claim 1, Klick disclose an edge-lit illumination system (Figure 9) comprising:

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- a light transmitting sheet 1 (English translation, Figure 9, page 7, Para. 10) and a light source positioned in proximity to and adjacent to an edge of the light transmitting sheet 1 (English translation, Figures 2 and 9, page 7, Para. 10);
- at least one - the limitation " at least one" being interpreted as either one or both opposing surfaces - of the two opposing surfaces of the light transmitting sheet 1 carrying markings (English translation, Figures 2 and 9); and
- the markings being randomly disposed on at least one nominal area of the at least one the opposing surfaces (English translation, Figures 2 and 9, page 7, Para. 10).
- the randomly disposed markings being of irregular shapes (English translation, Figure 1, page 4, lines 18 and 19) with in each of the nominal surface area.

However, regarding Claim 1, Klick et al. (European Patent Publication No. 0660293 A3) teaches the random distribution of the markings not perceivable with naked eyes (Klick, page 3, lines 29-32). Thus, Klick indirectly teaches the size range of the randomly distribution of the markings. However, Klick does not teach the specific range 0.1 to 10 mm covering the sizes of the randomly disposed markings as claimed by the applicant.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the edge-lit illumination system of Klick by providing a light emitting sheet having marking of the sizes within the range 0.1 to 10 mm, since it has been held

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that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 2 and 11, Klick further teaches:

- opposing surfaces of the light transmitting sheet carrying markings
(English translation, Figures 2 and 9, page 7, Para. 10) - the limitation " at least one" being interpreted as either one or both opposing surfaces-; and
- the randomly distribution of the markings being of irregular shapes
(Figures (Figure 2).

Regarding claims 3-8, 10 and 14, Klick does not teach an edge-lit illumination system comprising light transmitting sheet including:

- the marking covering from (a) 0.1 to 99%; and (b) 1 to 40% of the sheet area;
- the light emitting sheet having each nominal area being of equal size;
the light-emitting sheet having each nominal area is of different size;
- the area of marking coverage in each nominal area being the same;
- the area of marking coverage being different in each nominal area;
- marking ranges from 0.3 to 3 mm in length, and being of irregular shape;
and
- the specific ranges of dimensions corresponding to the length and width of the marking

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the edge-lit illumination system of Klick by providing a light emitting

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sheet having specific size marking covering a specific nominal area, since it has been held that discovering an optimum value of a result effective variables involves only routine skill in the art.

Regarding method claims 15 and 16, Klick discloses an edge-lit illumination system (Figure 9) comprising: a light source and a light transmitting light guide carrying randomly distribution of irregular shaped markings in the similar manner as discussed above for claims 1 and 10.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching Klick for meeting the limitations of claims 15 and 16.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klick et al. (European Patent Publication No. 0660293 A3) in view of Murase et al. (US Patent 5,178,447)

Regarding claim 12, Klick does not teach an edge-lit illumination system comprising a light-emitting sheet having its surface screen-printed with markings. Instead, Klick teaches the light-emitting sheet covered with at least one layer having markings on its surface.

On the other hand, Murase et al. (US Patent 5,178,447) discloses an edge light panel 10 (Figures 1-3, column 3, line 55) having its surface screen-printed with markings (Figures 1-3, column 3, lines 55-58).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the edge-lit illumination system of Klick by providing a light emitting sheet with its surface screen printed with markings as taught by Murase et al. (US

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Patent 5,178,447) for benefit and advantage of cost saving resulting from not requiring an additional film printed with markings.

5. Claims 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klick et al. (European Patent Publication No. 0660293 A3) in view of Ashall (US Patent 5,625,968).

Regarding claim 13, Klick et al. (European Patent Publication No. 0660293 A3) does not teach an edge-lit illumination system comprising a light emitting diode (LED) as the light source. However, Klick Does not specifically teach the light source being a fluorescent tube.

On the other hand, Ashall ('968) discloses a display system (Figure 1) comprising a light guide 10 carrying a plurality of markings 11 and 13 on its one of the major surfaces, and further optically coupled to a fluorescent tube based light source 20 (Figure 1, column 2, lines 50-54, and column 3, lines 39-41).

It would be have been obvious to one of ordinary skill in the art at the time of the invention to modify the edge-lit illumination system of Klick by providing the fluorescent tube as a light source for the benefits of providing wide angle light beam flux with minimum number of light emitting and light transmitting – light-bar - components for uniform illumination.

Regarding method Claim 17, Klick in view of Ashall ('968) discloses an edge-lit illumination system (Figure 9) comprising: a light source including a fluorescent tube, and a light transmitting light guide carrying randomly distribution of irregular markings in the similar manner as discussed above for claims 1, 13 and 14.

It would be have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching Klick in view of Ashall ('968) for meeting the limitations of Claim 17.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Taniguchi et al. (U.S. Patent No. 6,099,134), Giuliano et al. (US Patent No.: 5,743,616), Matsumoto (U.S. Patent No. 5,649,754), Van Order et al. (U.S. Patent No. 5,582,474), Blonder et al. (U.S. Patent No. 5,349,503) and Wragg (U.S. Patent No. 4,373,282)

Each of the above-indicated prior arts discloses a light source assembly for display assembly comprising some of the claimed features claimed by the applicant.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571-272-2380. The examiner can normally be reached on 6:15 - 2:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306/7724 for regular communications and (703) 872-9306 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2956.

HSS

June 25, 2004



THOMAS M. SEMBER
PRIMARY EXAMINER